



EPA would like to thank the following people and organizations for providing images for this Community Involvement Plan:

- City of Gibraltar
- Flat Rock Public Library
- Gibraltar Councilman Bill Baker
- U.S. Fish and Wildlife Service
- Wyandotte Nation

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The U.S. Environmental Protection Agency prepared this **Community Involvement Plan** to inform, engage and support the **community** affected by the DSC McLouth Steel Gibraltar Plant **Superfund** site located in Gibraltar, Michigan. Our **community involvement** effort is committed to promoting effective and meaningful communication between the **public** and the Agency. We want to make sure the community's concerns and information needs are considered as activities at the site progress.

This **CIP** was prepared to support environmental investigation and **cleanup** activities at the DSC McLouth Steel Gibraltar Plant. We used several information sources to develop this plan, including research, discussions with community members and information gathered during community interviews. We conducted interviews with 23 residents and local elected officials from the city of Gibraltar who are interested in the site's activities and cleanup efforts. Representatives from the Michigan Department of Environment, Great Lakes, and Energy (formerly the Michigan Department of Environmental Quality) assisted with the interviews. (Words in **bold** are defined in Appendix A.)

EPA's Community Involvement Goals

- Assist residents in understanding the steps toward decision-making during a site investigation and cleanup.
- Give accessible, accurate, timely and understandable information about the project as it moves forward.
- Ensure adequate time and opportunity is given to the public to supply EPA with meaningful input, and for said input to be considered.
- Reflect and respond to community concerns, questions and informational needs.
- Respect and fully embrace community involvement throughout the Superfund process.

This CIP describes EPA's plan for addressing concerns and keeping the community involved in investigation and cleanup activities at the site. We will use this document as a guide to involve and communicate with residents, businesses and the city of Gibraltar.

If you are interested in submitting comments or have questions or suggestions concerning this CIP, please contact:

Kirstin Safakas

Community Involvement Coordinator

Community Involvement & Outreach Section External Communications Office

Office: 312-886-6015 Cell: 312-919-4621 safakas.kirstin@epa.gov "A Community Involvement Coordinator's main concern is ensuring that residents understand and feel comfortable with the investigation and cleanup process of a Superfund site, such as McLouth Gibraltar. We work hard to earn community trust."

Kirstin Safakas, EPA Community Involvement Coordinator

The CIP is a working document. As input is received from the community, the investigation and cleanup process may evolve. This plan is intended to be flexible, adaptable and used as a guideline for our communication with the community.

Overview of the Site

The DSC McLouth Steel Gibraltar Plant Superfund site is located at 28000 West Jefferson Avenue in Gibraltar, Wayne County, Michigan. It is approximately 620 acres bordered by Vreeland Road to the north, West Jefferson Avenue to the east, Gibraltar Road to the south, and west by railroad tracks near Fort Street. It is important to note that the site does **not** include the mill building. The site includes a **leachate** treatment lagoon system, and three landfills (Countywide Landfill, and Landfills A and B). The steel mill sludge was disposed of in these landfills. Failure of the leachate control systems resulted in **contamination** to adjacent creeks and drains that lead to the Detroit River. The Humbug Marsh, part of the U.S. Fish and Wildlife Services' Detroit River International Wildlife Refuge, is right next to the site.

On April 27, 2015, EPA placed the DSC McLouth Gibraltar Plant on the **National Priorities List**, making it eligible for investigation and cleanup under the Superfund Program. An investigation of the extent of the contamination of the DSC McLouth Gibraltar site began in the spring of 2016 and is currently ongoing.

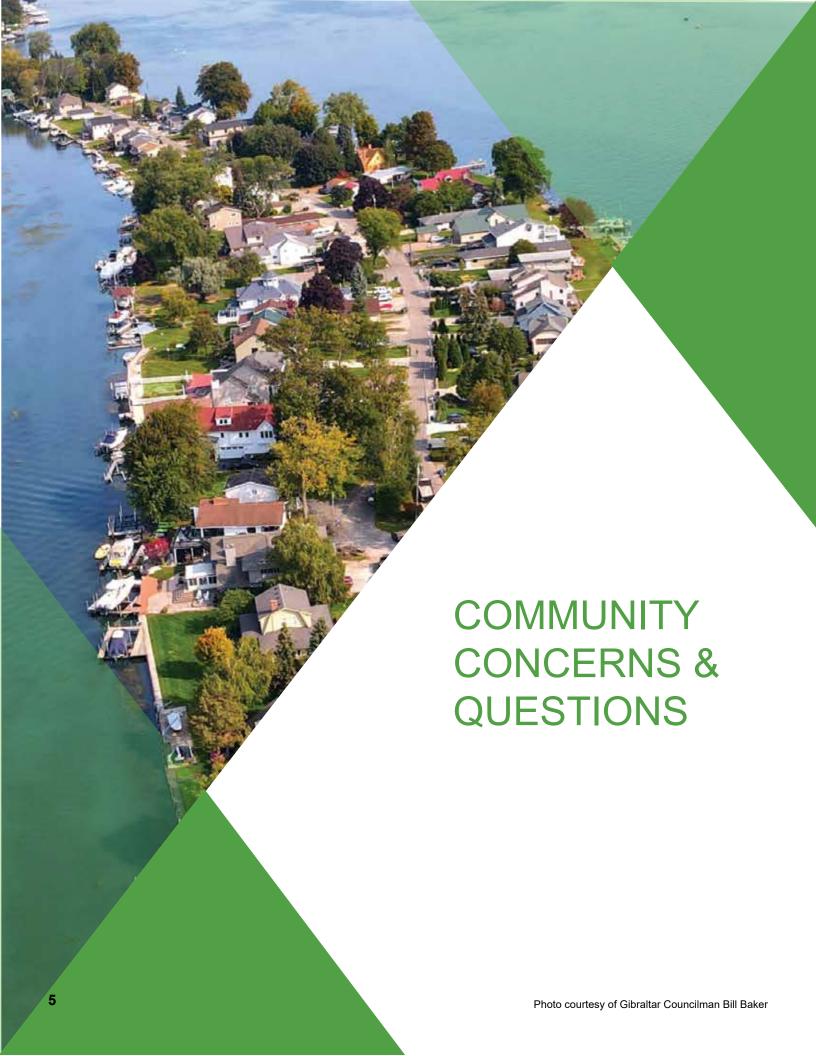
(See Page 29 for more detail about the site.)



Lagoon system on the site

Please note: Effective April 22, 2019, the Michigan Department of Environmental Quality officially changed its name to the Michigan Department of Environment, Great Lakes, and Energy (or EGLE). All references in this CIP to that state agency will be EGLE, even when referring to actions taken when the agency was going by its previous name.

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Ongoing input and involvement with the community is essential in our efforts to provide effective **community engagement**. We have learned that EPA's decision-making ability is enhanced by actively seeking input and information from the community. Residents need to be involved in all phases of the investigation and cleanup so that the contamination is addressed in a way that protects people and the environment – now and in the future.

Residents, business owners and local government officials may be able to provide valuable information about a site that can help us determine the best way to clean it up. Information from locals can help determine the location of contamination, how people may be exposed to the contamination and perhaps even sources of the contamination. Residents and officials of the city of Gibraltar educated EPA about their community and told us about their concerns, which are presented below.

This section is intended to faithfully record and reflect the issues and concerns expressed to EPA by residents and officials interviewed during our community interviews. By necessity, this is a collection and summary of thoughts and observations and, in some cases, opinions. Please be cautioned that the statements contained in this section may or may not be factual and that the opinions/concerns expressed may or may not be valid.

What We Heard Community Concerns

Water contamination

The biggest concern raised during community interviews was concern about the potential effect the contamination from the site could have on the quality of the water in area creeks, canals and the Detroit River. Most people specifically expressed concern about leachate from the Countywide Landfill getting into Frank and Poet Drain, which runs through the site, and then carrying the contamination into the canals and river. Many talked about how the canals and river are used for kayaking, boating, fishing and many other recreational activities. They expressed concern about people being exposed to contamination in the waterways. Several people mentioned that the canals flow right past people's homes and are concerned that people,



Photo courtesy of the city of Gibraltar Kayaks and kayakers near the canals in Gibraltar

especially children, could be exposed. One person talked about how the whole canal (Frank and Poet Drain) would turn red. He said this went on for years throughout the 1960s and 70s. He explained that he was able to take his canoe up Frank and Poet Drain to where he saw the red water "pouring out" of pipes coming from the site. He said the contamination caused fish kills and stained cattails and rocks. Another person told EPA that people use the Frank and Poet Drain for watering their lawns – concerned that if there was contamination in the drain, the contamination could be getting into people's gardens and lawns.

Still another said that people in the community do not even know what is in the leachate. A few people pointed out that two creeks, Frank and Poet Drain and Brownstown Creek, run through the site and could carry contamination from the site into the community. One person expressed concern that Brownstown Creek flows from the site to property owned by

"Our water is a precious resource and we can't just keep contaminating it."

- Resident

the Wyandot of Anderdon Nation and that contamination could be carried to the Wyandot property. Another person said that he hunts and fishes in the area, so the water quality is important to him. It was apparent that both Brownstown Creek and Frank and Poet Drain are important to the Gibraltar community.

Several people questioned if the leachate was still being pumped out and trucked off the site as leachate builds up every time it rains. One individual said he does not see trucks removing leachate the way he used to, and another said that he has seen leachate overflow from the ponds into the Frank and Poet Drain.

Several people also expressed concern that the contamination from the site could contaminate area **groundwater**; one person said she questioned if it could impact her drinking water or water for bathing. This individual said she did not trust the drinking water standards, called **maximum contaminant levels**, or **MCLs**, because they can be changed.

A couple of people said that the economy of Gibraltar depends on the water quality. One person said, "Gibraltar is encircled by woods and water, which provide for wildlife and water recreation businesses that rely on the wildlife and water." He went on to say, "The quality of the water is also important for home values."

"The permanent care of the environmental problems would certainly help maintain the quality of life here and for future generations."

- Resident

Investigation and Cleanup/Superfund Process

Most people we spoke with wanted to know what the status of the investigation and cleanup was and how long the process will take. Several said they hoped that the investigation and most importantly, the cleanup, would be done right. One person said, "We have already had a lot of investigations, we need action." A few said they would like to know more about the Superfund process.

The new owners of the mill building expressed concern about the contractor trucks going in and out of the property through their gates, across their new asphalt parking lot. They requested that in the long term, EPA creates another entrance off Jefferson Avenue instead of through their property. They also requested EPA to give the new owners a heads up before its contactors need to come onto their property.

Countywide Landfill

Many people we talked with said they had long-standing concerns about the Countywide Landfill. Several said they had actively worked against the proposed expansion of the landfill. Others also said the landfill is very contaminated – that people were dumping in there for years. A few residents said they would like to see the landfill capped and the land re-used. One person said that he believed that it was better to have a licensed facility rather than one that was not.

Another person said that landfills are a big industry Downriver, which she expressed frustration about. She said she did not believe the people had a say in the permitting of the landfills and that, from her perspective, EGLE was "just a permitting agency."

Oil in ponds and lagoons affecting wildlife

Many people EPA talked to expressed concern about oil in the ponds and lagoons on the site. Those people said they were concerned about the effect the oil has had on wildlife in the area – particularly migrating birds such as ducks, geese, eagles and egrets. Several people told EPA that "whole flocks" of birds were lost because they got stuck in the ponds and



Countywide Landfill

became covered with oil. Everyone said that they wanted to see the ponds cleaned up.

Protecting the International Wildlife Refuge

Many people EPA spoke with pointed out that the newly developed International Wildlife Refuge is across the street from the site. Several expressed concern about the potential effect of the contamination on the refuge. A couple people told EPA that part of the refuge, Humbug Marsh, was the last mile of undeveloped land along the Detroit River in the United States. We were also told that Humbug Marsh was designated a "Wetland of National Importance". People want to keep the refuge protected.

"Our whole ecology has been upset."

- Resident



Photo courtesy of the U.S. Fish and Wildlife Service Humbug Marsh



Photo courtesy of the U.S. Fish and Wildlife Service International Wildlife Refuge Pier

EPA involvement

Many people EPA talked to were happy that EPA was working on the site. One person said, "I am concerned about the site, but I am glad you are on the job." Another said, "It sounds like there are a lot of competent people that care about the environment [working on the site], and that comforts me." A couple others said they thought the community outreach EPA is doing is a good idea. One person said, "It is a good thing that

you are reaching out, because otherwise rumors get spread and people get fearful." Another said he was encouraged that EPA is working on the investigation and that EGLE is still removing the leachate; he understood that some Superfund sites are not getting funding to do any work, so he was glad something was happening at this site. A few specifically said they were glad the site was put on the NPL.

Trucks seen going in and out of the site

Several people expressed concern about seeing trucks going in and out of the site, worrying that they were still accepting waste at the landfill and bringing in more contamination. One person said she hears from a lot of concerned locals when they see trucks on the site.

Distrust of site owner

Several people EPA spoke with stated that they did not trust the owner of the site. One resident said she did not have a lot of faith that the owner would not just start using the landfill again, and asked EPA what would stop the owner from operating again. She also said that the owner had put a black covering over the



A truck on the site

"One of the scariest things about these old sites is that things were not always done the way they should have [been] 70+ years ago"

- Resident

fence making it difficult to see what was happening on the property. Another person stated the owner has no respect for rules and regulations. One resident did mention that the owner had provided jobs but promised a lot more than they could offer, so there was not as much gratitude in the community as there might have been. He went on to say that the owner's promises were "a lot of smoke and mirrors."

Lack of awareness

Several people said they did not think the site is in the forefront of community members' minds. They said that people were aware of the site when the landfill was being proposed to be expanded and/or when the site was placed on the NPL, but not so much anymore. A couple said they

"I want to continue to be an advocate to get this [site] cleaned up"

Mayor Gorris

thought it was an "out of sight, out of mind" situation. Another person said she thought that it was not as much a lack of awareness as it was that "people have given up talking about it." She said, "What more is there to say? We have been complaining about this since 1957." Several people requested that EPA keep residents, and most importantly, the city, informed of its activities associated with the site. One person said there are a lot of children in the community and she would like to see them be informed and involved.

Cancer

A few people EPA interviewed talked about elevated levels of cancer in Gibraltar, and how they thought the site likely contributed to those rates. One person specifically said there is a disproportionate amount of bladder cancer in the area.

Funding

A few people expressed concern about funding the investigation and cleanup; a couple questioned if the owner of the site would pay for it. They said that it was their understanding that some money had been set aside by the owner to pay for the investigation and cleanup. Another person said it would be helpful for people to know what is happening with money regarding this site.

Reuse

A few people talked to others about the potential reuse of the site once it is cleaned up, and some individuals said they would like to see the landfill capped and the land redeveloped. One said he would like to see it become part of the International Wildlife Refuge. Other reuse ideas included a water park, a wind farm or a solar farm. One person said he thought a solar farm made the most sense. Another said she would like to see either a solar farm or wind turbines, otherwise leaving the land alone and allowing animals to come back. She also said that people will want to know what will be done with the land after it is cleaned up.

Odor

A couple of people EPA talked with expressed concern about an odor that they believed was coming from the site. One person said that when she has driven near the site, she has noticed an "overwhelming" odor. She said it felt like she was "driving into a thick wall of odor", believing it to be toxic. She went on to say that the odor is not always present, but that sometimes it is diluted and sometimes it is "really bad". She questioned if it could be coming from a wastewater treatment plant but wondered why it would smell near the plant when it had been renovated. She said a friend also told her that he would no longer drive down Jefferson Avenue by the plant, telling her that it smelled like Teflon coating. Another person told EPA that there had always been a bad odor coming from the site, but that he did not notice it anymore and wondered if something had been removed from the site.

Additional concerns:

Cemetery – One person said that there was a cemetery on the site that was supposed to have been moved. He said he was concerned that maybe not everything had been moved. He asked EPA to be aware and to take care in the area where the cemetery had once been.

Two "McLouth" sites confusing – One person said that she thought it was confusing that two sites so near each other had similar names. She said she thought people in the community might also be confused.

White powdery substance – One person told EPA that someone sent her a photo of a "white powdery" substance in the ditch in front of the plant on West Jefferson Avenue. She provided the photo to EPA.

Two "McLouth Steel" sites

Please Note: EPA is overseeing the cleanup of two sites with "McLouth Steel" in the name, which often confuses people. This document is addressing the site called "DSC McLouth Steel Gibraltar Plant Superfund Site", which is located in Gibraltar. The other site, located in Trenton 4 miles north of this site, is the "Former McLouth Steel Facility Superfund Site." While both sites were operated under McLouth Steel and are now (at least partially) owned by Detroit Steel Company, or DSC, they are separate from each other; each site is following the Superfund cleanup process independently.

Grandfathering – One person expressed concern that **grandfathering** was the cause of the blockage regarding appropriate use of land in the community – including at the Gibraltar site. She said that it "tied the hands" of the community.

Additional comments people made:

Tax-revenue – One person EPA spoke with said the McLouth plant in Gibraltar provided tax revenue in the past. She said, "If it wasn't for the plant, the city would not exist – [the plant] provided for schools, police, fire, etc." Another said the city still collects taxes on the property.

Quarry on the site – A couple of people mentioned that McLouth filled in part of the quarry on site but they were not sure what was used for fill.

People swimming and hunting on the site – A couple of people told EPA that kids used to swim in the quarry and creeks on the site. One said, "The kids used to go back there and party." Another said he used to hunt on the property, but that it is no longer allowed. He said people do still go on the site, but not to swim or hunt.

Historic Battleground – A couple people told us that a battle of the War of 1812 - the "Battle of Brownstown" - was fought on the land that Carlson High School now occupies.

Sulphur Springs – One person said the land the site is on used to be full of sulphur springs that were filled in when the plant was built. The site was also farmland and sheep pastures.



Photo courtesy of Gibraltar Councilman Bill Baker
The land on which Carlson High School now sits is where the Battle of
Brownstown was fought during the War of 1812.

"What Defines Your Community?"

It is hard to believe we live near a city when there is so much nature around.

We see ducks and geese and you can put your kayak in the river or canals and just take a ride.

I love the area. It has a little bit of everything – restaurants, grocery stores, etc., but then not too far away you can get lost in nature. I love water and outdoor recreation and love the parks.

I like the waterfront.

I love the activity on the river.

It is a small, tight-knit community.

It is a boating and kayaking community. In the summer, the canals are very active with water activities.

It is the Venice of Michigan.

It is a revolutionary town.

The area has a lot of hunters and fishers.

It is unique.

My family lives here.

I love living on a canal.

It is a beautiful waterfront community.

Most people live on the water.

It is a boating and recreational community.

The water is beautiful.

It is an environmentally conscious community.

It has access to marinas.



Photo courtesy of the city of Gibraltar Kayakers in Gibraltar



Photo courtesy of the U.S. Fish and Wildlife Service Humbug Marsh

Kayaking.

It is home to Humbug Marsh, which has the last mile of untouched shoreline on the Detroit River in the United States and is a "Wetland of International Importance."

Our community is proof that industry and natural areas can work together.

We are at the edge of a metropolis but are still a bedroom community.

People rally around each other.

It is "off the beaten track." People don't just drive through the community.

Everyone knows each other.

We are hardworking and good people.

We are casual.

We pay attention to the water and the fish – we care.

The open space.

The natural resources.

Our relationship with Canada.



Photo courtesy of Gibraltar Councilman Bill Baker Boats docked in Gibraltar



Photo courtesy of Gibraltar Councilman Bill Baker Aerial photo of island in Gibraltar

Community Questions

General Questions

- 1. What does the site encompass?
- 2. Who owns the site?
- 3. Are they still importing waste?
- 4. Do the ponds still have oils in them?
- 5. Is there water in the quarry?

Contamination Questions

- 6. Are the oils natural or man-made?
- 7. Do the water levels affect the leachate?
- 8. What are the hazards associated with the site?
- 9. What is in the leachate?

Investigation and Cleanup Questions

- 10. Why are you doing the investigation now?
- 11. What is the status right now?
- 12. What is the timeline for the investigation and cleanup?
- 13. Does the finding of per- and polyfuoroalkyl substances, or PFAS, speed things up at all?
- 14. How do you (EPA) feel about the progress?
 - a. Are you happy with it? Is it worse? Do you wish you were further along?
- 15. What is the plan?
- 16. Where will the contamination go?
- 17. What are you planning to do with the property?
- 18. What is the end goal?
- 19. How often do you take away leachate?
- 20. What are all the trucks I see going in and out?

Cost Questions

- 21. Who is going to pay for this?
- 22. Are they [the current owners of the site] still going to be able to own the land and then benefit from the cleanup [even though they are not paying for the cleanup]? If they become profitable, can we recover the money from them?

Community Engagement Questions

- 23. Is there anything we should be aware of?
- 24. How can I keep up?
- 25. What can I do?



When establishing objectives for a site-specific community involvement program we consider several factors, including federal requirements and EPA policy that assess the nature and extent of known (or perceived) site **contaminants** and known community concerns.

To be effective, our community involvement program is designed to meet the community's need to know. EPA plans to give information in a timely manner and accommodate the community's interests as well as its willingness to participate in our decision-making processes. We are tasked with sharing information in plain language, so that the public can understand.

We have established the following objectives for our community involvement efforts:

- Enlist the support, coordination and involvement of city of Gibraltar officials and community leaders;
- Enlist the support, coordination and involvement of EGLE;
- Monitor citizen interest in the site and respond accordingly;
- Keep the community well-informed of ongoing and planned site activities;
- Explain technical site findings and documents in an understandable format for residents;
- Get public input on key decision steps;
- Update EPA's website regularly, providing useful information for the community;
- Update city of Gibraltar officials on a periodic basis; and
- Hold **public meetings** and open houses, when necessary, within the community, giving all residents an opportunity to attend.

EPA has or will put in place the activities described on the following pages to actively engage the community in decisions regarding the investigation and cleanup of the DSC McLouth Steel Gibraltar Plant. The following plan is intended as opportunities for communication between the community and EPA, addressing key concerns and questions raised during the community interviews conducted with locals in Gibraltar.

Community Involvement Activities

To address community concerns and questions described in the Community Concerns section, while also meeting federal requirements, EPA has conducted/will conduct the activities described below. Through these activities, it is our goal to inform, involve and engage locals during site cleanup efforts. As the needs of the community change, we will modify community involvement strategies to address them.

Maintain Point of Contact

Kirstin Safakas is the primary liaison between EPA and the city of Gibraltar community. Kirstin serves as the point of contact for community members and fields general questions about the site. For technical site issues, she coordinates with Robert Thompson, EPA's **Remedial Project Manager**, or **RPM**, and Brian Kelly, EPA's **On-Scene Coordinator**, or **OSC**. Robert is responsible for overseeing the long-term investigation and cleanup under EPA's Remedial Program under Superfund. Brian is responsible for overseeing any short-term removal work done under EPA's Removal Program under Superfund. (See Page 32 for an explanation of the Removal and Remedial Programs.)

Kirstin Safakas

Community Involvement Coordinator

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Robert Thompson

Remedial Project Manager 312-353-9078 thompson.robert@epa.gov

Brian Kelly

On-Scene Coordinator 734-714-4890 kelly.brian@epa.gov Located in the Chicago office, Kirstin and Robert can also be reached weekdays toll-free at:

800-621-8431 from 9:30 a.m. to 5:30 p.m.

Post Information Online

www.epa.gov/superfund/dscmclouth-steel-gibraltar

We will provide information on activities and past communications on the EPA website above as well as update it as events occur. Community members interviewed recommended that EPA use local Facebook pages to reach people as well as the websites, Facebook pages, e-mail distribution lists and newsletters of the city and local organizations. See Appendix D for a list of interested parties EPA will provide information to post on their sites and/or distribute to their members electronically.

Create Contact Lists

We have established a mailing list of residents, organizations, businesses and officials for the site. This list will be used for mailing fact sheets, site updates, invitations to public meetings and events, and other site-related information. We will update the list regularly to reflect address changes as well as changes in elected officials. When requested, we will also add new interested parties to the lists. We have also developed an e-mail distribution list. If a community member is interested in being placed on the mailing and/or e-mail list, they can contact Kirstin Safakas, the site's **Community Involvement Coordinator**, or **CIC**. These lists are for EPA use only and are not shared with outside entities.

Prepare Fact Sheets for Updates

We will prepare and distribute fact sheets, letters and site updates summarizing current information about the site and describing upcoming activities. These documents are written in non-technical language and usually developed to coincide with important site activities. In addition to being shared with individuals on the site's distribution lists, we also place all written documents in the information repositories as well as post them on EPA's website. EPA will also distribute them to various drop-off locations throughout the communities. Some additional locations community members suggested included the city hall, community center, and the International Wildlife Refuge visitor center.

Distribute News Releases

News releases allow us to reach large audiences quickly. We will post news releases on the site's website as well as place announcements in local newspapers such as the News Herald; in this we will also share information about significant site investigation findings, **public comment periods**, public meetings and completion of major milestones such as the proposal of a cleanup plan (**proposed plan**). We will continue to provide this information to the city of Gibraltar as well as other local organizations listed in Appendix D. While most people EPA spoke with said the primary newspaper for the Gibraltar community was the News Herald, some said they read the Detroit Free Press, The Detroit News and the Monroe News, so EPA may use these as well. Residents also said they listened to local Detroit television stations and a few radio stations, which EPA may use for announcements in the future.

Establish Information Repositories & Administrative Record

We have set up local **information repositories** and will set up the **Administrative Record** at the following locations:

Flat Rock Public Library

25200 Gibraltar Road Flat Rock, MI 48134 734-283-2430

Trenton Veterans Memorial Library

2790 Westfield Road Trenton, MI 48183 734-676-9777



Photo courtesy of the Flat Rock Public Library



Trenton Veterans Memorial Library

Flat Rock Public Library

The information repository is a collection of site information available to the public for reading and photocopying. Documents include fact sheets, technical reports, the CIP and general Superfund information, and are also housed at the EPA Region 5 Superfund Records Center in Chicago (see Appendix C). An online database will remain available on the site's web page. The Administrative Record gives residents a paper trail of all legal documents EPA uses to reach decisions about site cleanup. Interviewees were split down the middle as to which library they used, so EPA has established a repository at both the Flat Rock and Trenton Libraries. Additional potential locations interviewees suggested for repository locations include the International Wildlife Refuge Visitor Center and the Gibraltar City Hall.

Conduct Public Meetings

Public meetings are an opportunity for EPA to present specific information and a proposed course of action. Meetings may either be held in person or virtually. These meetings are not formal public hearings where testimony is received and recorded; instead, EPA may hold gatherings to exchange information with residents. In addition, EPA may hold informal open-houses where citizens can meet with EPA experts one-on-one to discuss activities on site. Either type of meeting allows community members an opportunity to express their concerns and ask questions. EPA usually schedules these types of meetings when there are technical project milestones.

A public hearing is a formal meeting where EPA documents the public's views and concerns about an action or proposal. There are specific regulations about when the Agency is required to consider such comments. These hearings are recorded by a professional transcriber/court reporter and become part of the site's administrative record. All written comments are also posted on EPA's website.

EPA will consider conducting additional meetings at different times and locations throughout the community to give all residents an opportunity to attend. The locations community members suggested for EPA to consider are listed in Appendix C, although most residents said that the community center in Gibraltar would be the best location.

Participate in Local Events

On occasion, the city, local agencies, or community groups will request EPA's participation in events to provide site information and respond to resident concerns. EPA considers invitations and offers to speak to community groups based on the event's ability to meaningfully reach members of the public. During our community interviews, residents suggested that EPA speak at events for the Rotary Club of Gibraltar and the Community Service Organization. Interviewees also suggested EPA speak to science classes in the Gibraltar schools and host a booth at the Pointe Mouillee Waterfowl Festival.

Assist in Forming a Community Advisory Group

www.epa.gov/superfund/superfund-community-advisory-groups

A **Community Advisory Group**, or CAG, is made up of residents and provides a formal mechanism for community members to have a voice in EPA decisions. CAGs are eligible for technical assistance and funding to help residents fully understand all aspects of environmental investigations, sampling data and interpretation of results and risks. If the community expresses interest, EPA can provide assistance forming a CAG for the site.

Provide Additional Superfund Tools

There are additional programs potentially of use to the community. Two of these programs are the **Technical Assistance Services for Communities**, or **TASC**, and the **Technical Assistance Grant**, or **TAG**. The TASC program supplies communities with technical help so they can better understand the science, regulations and policies of environmental issues. TAGs provide funding for activities that help communities participate in decision-making at eligible Superfund sites. For more information on TASC & TAG, contact EPA CIC Kirstin Safakas.

Prepare Site Videos

To give residents a better visual of activities, EPA may consider taping a short video to show ongoing site work. The video will be posted on EPA's website.

Evaluate and Adjust

This CIP was designed to consider site- and community-specific factors as well as to comply with federal requirements. EPA recognizes that changes in community perceptions, informational needs and population demographics can occur over time and that such changes may necessitate a revised approach to conducting community involvement. For this reason, as well as to determine whether the activities in this plan are achieving their intended objectives, we will conduct periodic reviews to determine whether changes to current methods are necessary. As the needs

of the community change, we will modify our community involvement strategies and address them in a CIP revision.



EPA would like to hear from you!

U.S. Environmental Protection Agency representatives would like to talk with area residents about the DSC McLouth Steel Gibraltar Plant Superfund site. The agency is continuing investigations of releases from the DSC McLouth Steel Gibraltar Plant and the associated landfill.

While studying the nature and extent of contamination at the site, EPA will also conduct public outreach activities to learn the informational and communication needs of the community. The agency's first step in building positive relationships with community members is through one-on-one conversations with residents to learn about their site-related concerns and the preferred way to receive information about the site from EPA.

Kirstin Safakas, EPA Community Coordinator and Robert Thompson, EPA Remedial Project Manager, will be available to talk with you over the phone on August 18, 19 and 20, between 10 a.m. and 7 p.m. During the 30-minute session, EPA will ask questions to help us understand your community's concerns about ongoing investigations and cleanup at the site. The information gathered from residents will be used to create a Community Involvement Plan, which is a communication strategy guide the agency uses to enable meaningful community involvement throughout the Superfund cleanup process.

If you would like to schedule a time to talk with EPA, please contact Meg Moosa, EPA contractor, at: 440-688-4006 or meg.moosa@tetratech.com.

You can also contact Kirstin toll-free at 800-621-8431, Ext. 66015, weekdays 9:30 a.m. - 5:30 p.m. or at safakas.kirstin@epa.gov.

Visit www.epa.gov/superfund/dsemelouth-steel-gibraltar for more information on the site.

Community Involvement Timeline

The graphics/charts on the following pages show community involvement activities EPA organizes at a site and how they follow along with the investigation and cleanup process. The following is a list of past community involvement activities at the site:

- July 16, 2020 EPA mailed a postcard inviting community members to participate in community interviews.
- August 2, 2020 EPA placed an advertisement in the News Herald inviting community members to participate in community interviews.
- August September 2020 EPA conducted interviews with community members with the assistance of EGLE.
- February 2021 EPA completed this CIP.

Status of Community Involvement Activities

| Activity | Status |
|---|--------------|
| Establish point of contact: Kirstin Safakas | Completed |
| Establish a toll-free number: 800-621-8431 | Completed |
| Post information online: www.epa.gov/superfund/dscmclouth-steel-gibraltar | Ongoing |
| Create contact lists | Ongoing |
| Prepare fact sheets for updates | Ongoing |
| Distribute news releases | Ongoing |
| Establish information repositories & administrative record | Ongoing |
| Conduct public meetings | Ongoing |
| Participate in local events | As needed |
| Assist in forming a Community Advisory Group | If requested |
| Provide additional Superfund tools | As needed |
| Prepare site videos | As needed |
| Evaluate and adjust | As needed |

Superfund Process Steps

Community Involvement Opportunities

- Gather historical site condition information to determine if further investigation is needed
- Use Hazard Ranking System to evaluate risks

Preliminary Assessment/Site Inspection

• Provide any information you have about the site to the U.S. EPA

- Publish notice in Federal Register and local media announcing proposed listing and public comment period
- Once listed, U.S. EPA publishes notice in Federal Register and responds to comments
- National Priorities List Process
- Read information about U.S. EPA's proposal to list the site
- Contact U.S. EPA for questions or additional information
- If concerned, submit comments during the Public Comment period

 Determines the nature and extent of contamination, evaluates human health and ecological risk

Remedial Investigation/ Feasibility Study

- Consider forming a Community Advisory Group and applying for a Technical Assistance Grant
- Participate in public meetings
- Contact community involvement coordinator with questions

 Presents the cleanup alternatives and is issued for a 30-day public comment period

Proposed Plan

- Read proposed plan
- Participate in public meetings
- Visit Information Repository

 Contains the selected remedy for a site and the Responsiveness Summary which provides responses to all comments received during the public comment period

Record of Decision

- Read the ROD for site cleanup
- Participate in public events or visit the information repository
- Contact site CIC with questions

- Includes preparing for and doing the bulk of the cleanup at the site
- Final design is developed

Remedial Design/ Remedial Action

- Learn about the final design
- Work through your CAG, TAG or Technical Assistance Services for Communities provider for information
- Attend meetings and site visits
- Contact CIC with questions

 Any necessary physical construction has been completed (even though final cleanup levels may not have been reached)

Construction Completion

- Attend meetings and site visits
- Contact CIC with questions

- Ensures that Superfund cleanups provide long-term protection of human health and environment
- Monitoring continues

Post-Construction Completion

- Work through your CAG, TAG or TASC provider for information
- Visit the site or arrange a site tour through U.S. EPA
- Contact CIC with questions

- All site work completed
- U.S. EPA requests comments on upcoming deletion of site from NPL list

NPL Deletion

- Read U.S. EPA's proposal and Responsiveness Summary
- Read the final deletion report
- Plan a community event to celebrate deletion from NPI

After site is clean:

- U.S. EPA works with community to help return site to productive use
- U.S. EPA will ensure that any land use restrictions continue to be met

Reuse

- Work with U.S. EPA and neighbors to plan the redevelopment
- Explore U.S. EPA's tools and resources
- Be supportive of redevelopment plans once they've been agreed upon

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The DSC McLouth Steel Gibraltar Plant Superfund Site is located in the city of Gibraltar. EPA met with officials and residents and officials from the city of Gibraltar in the development of this CIP. The following provides information about those communities, including their history, government and demographics.

City of Gibraltar

Location

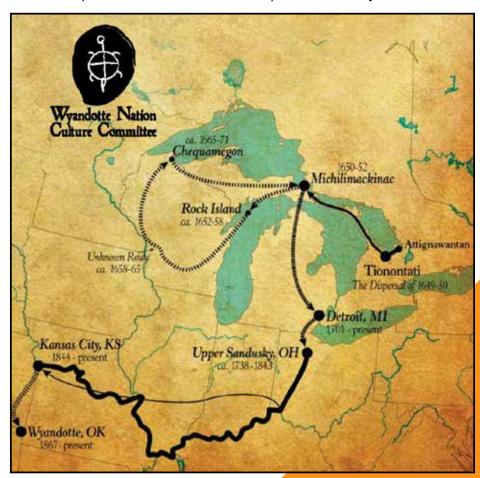
The city of Gibraltar is located along the Detroit River in Wayne County, about 25 miles southwest of Detroit. Humbug Marsh, part of the Detroit River International Wildlife Refuge, is located in northern Gibraltar. The Lake Erie Metro Park is a 1,607-acre park located just south of Gibraltar. Humbug Marsh, the Lake Erie Metro Park, the Detroit River as well as over 5 miles of canals, wetlands and streams provide the community of Gibraltar with plenty of outdoor recreational areas.

History

The original inhabitants of the area of Michigan on which Gibraltar now sits were members of what is now the Wyandotte Nation. The Wyandot were instrumental in the founding of Detroit and were the last tribe east of the Mississippi to be forced to move further west by the Treaty of 1843. A few members chose to stay in the Detroit area, in both the United States and Canada. and approximately 1,000 still live there today. They are known as the Wyandot of Anderdon Nation. West Jefferson Avenue, which passes north and south through Gibraltar, was initially a Native American Trail that Native Americans used to travel along. According to a local member, West Jefferson Avenue runs through what used to be five Wyandot villages.



Photo courtesy of the city of Gibraltar Aerial photo of the islands that make up much of the city of Gibraltar



Graphic courtesy of the Wyandotte Nation

When traveling north through the area, these Native Americans would leave their mares to give birth to their foals on Horse Island and would then pick the animals up on their way back south. The area provided good hunting and fishing and reeds for making baskets, all of which the Native Americans made good use of.

Gibraltar was originally called "Chenal de la Presque Isle" on French maps. English settlers in the area began calling it "Gibraltar," named after a British Overseas Territory located on the southern end of the Iberian Peninsula. The name was originally spelled "Gibralter" and was platted as such on March 14, 1837. However, in 1900, the spelling was changed to "Gibraltar". Many of the first European settlers in the area arrived by boat, avoiding the undeveloped land areas in between. The primary occupations/industries in the area included farming, shipbuilding, lumber mills and basket making. According to records, from 1863 to 1882, 23 vessels were built in Gibraltar. Gibraltar was also a regular stop for a steamboat that ran from Cleveland to Detroit. In 1954, Gibraltar was incorporated as a village, and reached the status of a "city" in 1961.

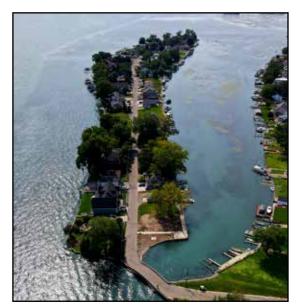


Photo courtesy of Gibraltar Councilman Bill Baker Aerial photo of Horse Island today



Photo courtesy of the city of Gibraltar Lumber mill and shipyard circa 1860's



Photo courtesy of the city of Gibraltar Building a sailing vessel on the shore of the Detroit River circa 1860's

Sources:

http://www.cityofgibraltar.net/ https://www.metroparks.com/parks/lake-erie-metropark/ https://www.mi-roots.org/index.php/counties/wayne-county/320cities-and-township/gibraltar-wayne-county-michigan https://www.wyandotte-nation.org/culture/history/ http://www.wyandotte-nation.org/wp-content/uploads/2012/11/ Wyandotte-History-Brochure-v3.pdf



Photo courtesy of the city of Gibraltar Original Gibraltar lighthouse in 1838

Governmental Structure

The city of Gibraltar has a mayor/council form of government. A mayor and six council members are elected, setting goals and objectives for the city in their four-year terms. Gibraltar has hired a city administrator to run day-to-day operations of the city including coordinating with the mayor, members of council, city commissions and department heads. The administrator oversees personnel management, the Department of Public Works and the Downtown Development Authority. The administrator is also the main point of contact for other local, state and federal agencies.

City council meetings are held on the 2nd and 4th Monday of each month.



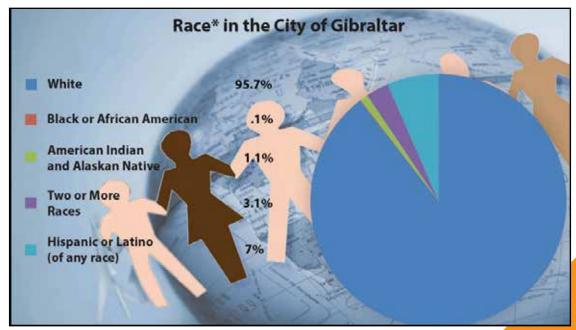
Photo courtesy of the city of Gibraltar Gibraltar City Hall

Demographics

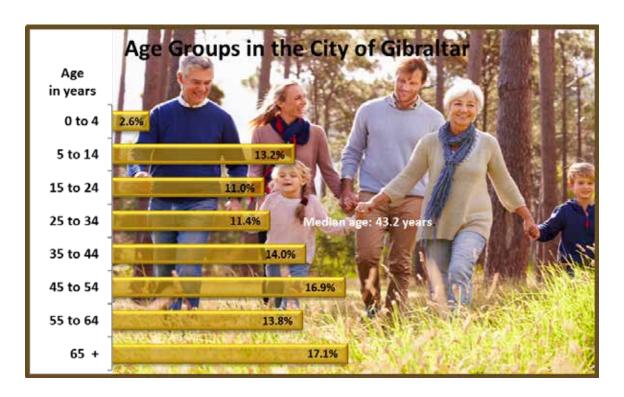
According to the 2018 American Community Survey conducted by the U.S. Census Bureau, the estimated current population of the city of Gibraltar is 4,529. At the time of the 2010 U.S. Census, the population was 4,656. Of the residents of the city of Gibraltar aged five and older in 2018, 93.3 percent said they speak only English. Approximately 6.7% said they speak a language other than English with about half of those saying they speak English "less than very well." Most of those that indicated they speak English less than very well said they speak Spanish.

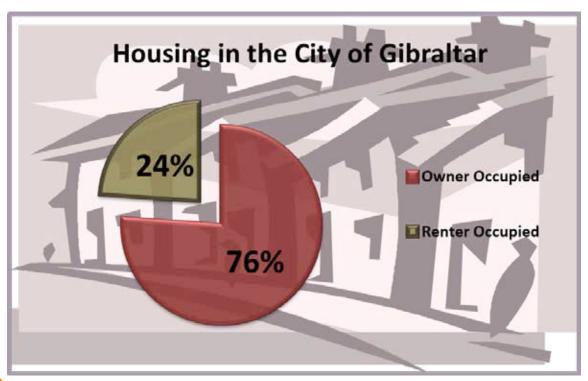
The following demographic information was obtained from the survey conducted by the U.S. Census in 2018.

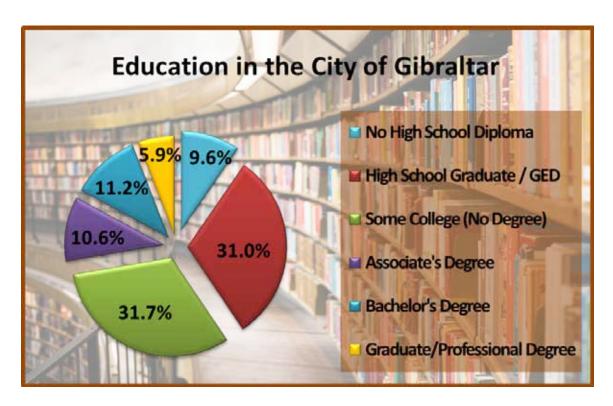
Source: U.S. Census Bureau

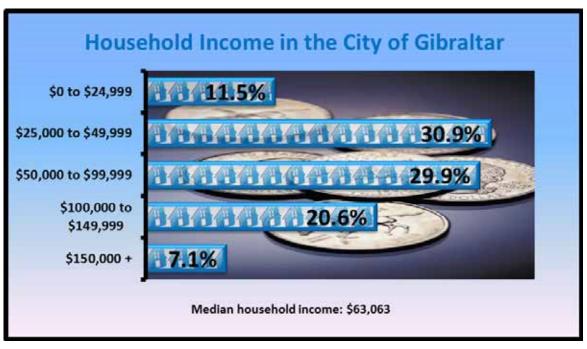


*The U.S. Census Bureau considers race and ethnicity separate and distinct identifies and the Hispanic/Latino origin is considered an ethnicity. In addition to being asked an individual's race, all respondents are categorized into one of two ethnic categories, which are "Hispanic or Latino" and "Not Hispanic or Latino." Therefore, the population that self-identified ethnicity as "Hispanic/Latino" is also represented within the "Race" chart shown above.

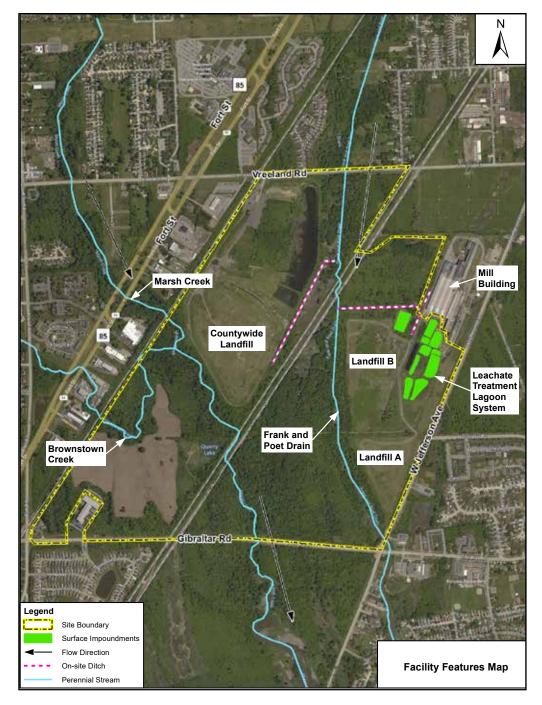












Site Description

The DSC McLouth Steel Gibraltar Plant Superfund site is located at 28000 West Jefferson Avenue in Gibraltar, Wayne County, Michigan. It is approximately 620 acres bordered by Vreeland Road to the north, West Jefferson Avenue to the east, Gibraltar Road to the south, and west by railroad tracks near Fort Street. The site includes a leachate treatment lagoon system and three landfills (Countywide Landfill, and Landfills A and B). The steel mill sludge was disposed of in these landfills. The leachate treatment lagoon system is located south of the former steel mill building and consists of a series of five interconnected basins and ponds, and the partially closed tandem mill pond. Leachate containing high concentrations of **phenols** and metals has resulted from rainwater and ground water percolation through steel waste and construction debris. Failure of the leachate control systems resulted in contamination to adjacent creeks and drains that lead to the Detroit River. The Humbug Marsh, part of the U.S. Fish and Wildlife Services' Detroit River International Wildlife Refuge, is right next to the site.

Site History

The McLouth Steel Company owned and operated the property as a steel finishing facility, performing annealing (reducing the hardness of steel), pickling (using an acid to remove rust and scale from steel), and cold-rolling processes beginning in the early 1950s. In 1996, mill operations ceased when the facility was sold to the Detroit Steel Company, Ltd. (DSC).

In 1999, DSC undertook response activities at the property required by an administrative order with the EPA. The order, which DSC has stopped complying with, requires DSC to stop the exposure of migratory birds to solid wastes at the treatment pond and to protect wildlife and wildlife habitat from any harmful effects of solid waste.

In 2007, 42 acres of the property, including the former mill building, were sold to Steel Rolling Holdings, Inc. This property is **not** a part of the Superfund site.

During the summer of 2010, EPA Removal Program (see box on Page 32) contractors:

- Constructed a system to collect the leachate;
- Filled the eastern and western leachate ponds with stone and covered them with clay;
- Installed a pipe into the landfill to remove leachate with;
- Installed an indicator to show the level of the leachate;
- Leveled and graded the cap; and
- Seeded the exposed areas of the Countywide Landfill. Three aerators were added to the IA and IB treatment system.

The steel mill waste landfills on site generate approximately 100,000 gallons of leachate per week, which is loaded into trucks and taken off-site for proper disposal under EGLE oversight. EGLE has managed the leachate collection since 2008. This will continue until a permanent cleanup at the site can address the problem as well as any other contamination associated with the site. Samples of the leachate were analyzed and showed a pH as high as 12.71. Waste with a pH of 12.5 or greater is considered hazardous waste because of its corrosivity.



Regraded and re-sloped landfill



Using equipment to determine the pH, temperature, conductivity, dissolved oxygen, oxidation-reduction potential, salinity and turbidity of a leachate sample

On April 27, 2015 EPA placed the DSC McLouth Gibraltar Plant on the National Priorities List, making it eligible for investigation and cleanup under the Superfund Program.

In 2015, the EPA Remedial Program (see box below) requested assistance from the EPA Removal Program to stabilize the leachate outbreaks and treatment ponds. The Removal Program conducted a time-critical removal action at the site, removing 4.7 million gallons of leachate from the landfills and treatment ponds.

In the spring of 2016, EPA's Remedial Program began a long-term investigation of the extent of the contamination of the DSC McLouth Gibraltar site. This investigation is currently ongoing.

Sampling results have since found per- and polyfuoroalkyl substances, or PFAS, in leachate at the Countywide Landfill, surface water ponds onsite on the Countywide landfill property and in the Frank and Poet Drain. A pond that discharges into the wetland adjacent to the Frank and Poet Drain also contains PFAS. Testing has also found offsite, upgradient sources of PFAS in the Frank and Poet Drain. Therefore, there are both onsite and offsite sources for the PFAS.



Leachate being pumped into a tanker

Types of EPA Superfund Responses Under Superfund, there are two types of response programs:

- The Removal Program, which handles shortterm removals, where actions may be taken to address releases or threatened releases requiring prompt response.
- The Remedial Program, which handles long-term remedial response actions, that permanently and significantly reduce the dangers associated with releases or threats of releases of hazardous substances that are serious, but not immediately life threatening. These actions can be conducted only at sites listed on EPA's National Priorities List.



Pumping leachate from on pond to another



Entrance to Countywide Landfill



Using a water level indicator to determine the depth to the top of the water and the depth of the bottom of the water in a pipe installed on the Countywide Landfill



Pumping leachate from a pond on site



Rock berm surrounding surface leachate



Leachate pooling on the landfill access road from a leachate outbreak area on the south slope of Countywide Landfill. The white material is mineral deposition that has evaporated out of the leachate as it dries. Photo looking east.

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APPENDICES

Appendix A - Glossary of Terms & Acronyms

Administrative Record: The body of documents that forms the basis for selection of a particular response at a site. For example, the Administrative Record for remedy selection includes all documents that were considered or relied upon to select the remedy through the Record of Decision.

CAG: See Community Advisory Group.

Community Advisory Group: A Community Advisory Group is made up of representatives of diverse community interests. Its purpose is to provide a public forum for community members to present and discuss their needs and concerns related to the Superfund decision-making process. A CAG can assist EPA in making better decisions on how to clean up a site. It offers EPA a unique opportunity to hear-and consider community preferences for site cleanup. However, the existence of a CAG does not eliminate the need for the Agency to keep the community informed about plans and decisions.

CERCLA: See Comprehensive Environmental Response, Compensation and Liability Act.

CIC: See Community Involvement Coordinator.

CIP: See Community Involvement Plan.

Cleanup: Actions taken to deal with a release, or threat of release, of a hazardous substance that could affect humans and/or the environment. The term "cleanup" is sometimes used interchangeably with "remedial action," "remediation," "removal action," "response action," or "corrective action."

Community: An interacting population of various types of individuals in a common location; a neighborhood or specific area where people live.

Community Engagement: The process of involving locals in all phases of the cleanup process. Communities are asked to provide input on how the cleanup will be conducted and how it may affect community plans and goals. See also Community Involvement.

Community Involvement: The term used by EPA to identify its process for engaging in dialogue and collaboration with communities affected by Superfund site. EPA's community involvement approach is founded in the belief that people have a right to know what the Agency is doing in their community. Its purpose is to give people the opportunity to become involved in the Agency's activities and to help shape decisions that are made.

Community Involvement Coordinator: The EPA official whose lead responsibility is to involve and inform the public about the Superfund process, in accordance with requirements set forth in the National Oil and Hazardous Substances Pollution Contingency Plan.

Community Involvement Plan: A plan that outlines specific community involvement activities that occur during site investigation and cleanup. The CIP outlines how EPA will keep the public informed of work at the site and ways in which residents can review and comment on decisions that may affect actions at the site. The CIP may be modified as necessary to respond to changes in community concerns, information needs and activities.

Comprehensive Environmental Response, Compensation, and Liability Act: A federal law passed in 1980, modified in 1986, by the Superfund Amendments and Reauthorization Act. Commonly known as Superfund, CERCLA is intended to protect people's health and the environment by investigating and cleaning up

abandoned or uncontrolled hazardous waste site. Under the program, EPA can either:

- Pay for site cleanup when parties responsible for the contamination cannot be located or are unwilling/ unable to do the work; or
- Take legal action to force parties responsible for site contamination to clean up the site or pay back the federal government for the cost of the cleanup.

Contaminant(s): Any physical, chemical, biological, or radiological substance or matter that has an adverse effect on air, water, or soil.

Contamination: The introduction of microorganisms, chemicals, toxic substances, wastes, or wastewater in a concentration that makes the medium unfit for its next intended use in water, air and soil. Also applies to surfaces of objects, buildings and various household use products.

Feasibility Study: A feasibility study is an analysis of the practicality of a proposal- e.g., a description and analysis of potential cleanup alternatives for a site such as one on the National Priorities List. The feasibility study usually recommends a selection of a cost-effective alternative.

FS: See Feasibility Study.

Grandfathering: Grandfathering is the process of allowing something that would otherwise no longer be allowed under current laws.

Groundwater: Underground supplies of drinking water.

Hazardous Substance(s): Any material that poses a threat to human health and/or the environment. Typical hazardous substances are toxic, corrosive, ignitable, explosive, or chemically reactive. Any substance designated by EPA are to be reported if a designated quantity of the substance is spilled in the waters of the United States or is otherwise released into the environment.

Hazardous Waste: Byproducts that can pose a substantial or potential hazard to human health or the environment when improperly managed. Hazardous wastes usually possess at least one of four characteristics (ignitability, corrosivity, reactivity, or toxicity) or appear on EPA lists.

Information Repository: A file containing current information, technical reports and reference documents regarding a site. The information repository usually is in a public building convenient for residents, such as a public school, town hall, or library.

Leachate: Leachate is formed when rainwater, snow melt, etc. filters through wastes placed in a landfill. When this liquid comes in contact with buried wastes, it leaches, or draws out, chemicals or constituents from those wastes and can carry them off site as runoff.

Maximum Contaminant Levels: Enforceable federal drinking water standards set by the federal Safe Drinking Water Act. These levels apply at the point of use (at the tap) but are often used in developing groundwater cleanup levels.

MCLs: See Maximum Contaminant Levels.

National Priorities List: EPA's list of serious uncontrolled or abandoned hazardous waste sites identified for long-term cleanup under Superfund. The list is based primarily on the score a site receives from the Hazard Ranking System (HRS). EPA is required to update the National Priorities List at least once a year.

NPL: See National Priorities List.

On-Scene Coordinator: On-Scene Coordinators (OSCs) are federal officials responsible for monitoring or directing responses to all oil spills and hazardous substance releases reported to the federal government. OSCs coordinate all federal efforts with and provide support and information to, local, state and regional response communities. EPA's OSCs have primary responsibility for spills and releases to inland areas and waters.

OSC: See On-Scene Coordinator.

Per- and Polyfuoroalkyl Substances: Per- and polyfluoroalkyl substances, or PFAS, are a group of man-made chemicals that includes PFOA, PFOS, GenX, and many other chemicals. PFAS have been manufactured and used in a variety of industries around the globe, including in the United States since the 1940s. PFOA and PFOS have been the most extensively produced and studied of these chemicals. Both chemicals are very persistent in the environment and in the human body – meaning they don't break down and they can accumulate over time. There is evidence that exposure to PFAS can lead to adverse human health effects.

https://www.epa.gov/pfas/basic-information-pfas.

PFAS: See Per- and Polyfuoroalkyl substances.

Phenols: Phenol is both a manufactured chemical and a natural substance. Phenol is used as a disinfectant and is found in many consumer products. Skin exposure to high amounts can produce skin burns, liver damage, dark urine, irregular heartbeat, and even death. Ingestion of concentrated phenol can produce internal burns.

https://www.atsdr.cdc.gov/toxfaqs/tfacts115.pdf

Proposed Plan: A plan for site cleanup that is available to the public for comment.

Public Comment Period(s): A formal opportunity for community members to review and contribute written comments on various EPA documents or actions.

Public Meeting(s): Formal public sessions that are characterized by presentations to the public followed by a question-and-answer session. Formal public meetings may involve the use of a court reporter and the issuance of transcripts. These meetings are required only for the Proposed Plan and Record of Decision amendments.

Public: The community or people in general, or a part of the community grouped together due to common interest or activities.

Record of Decision: A Record of Decision, or ROD, is a legal, technical and public document that explains which cleanup alternative will be used at a Superfund NPL site. The ROD is based on the technical analysis generated during the remedial investigation and feasibility study as well as consideration of public comments and concerns.

Remedial Investigation: The remedial investigation is a study designed to collect the data necessary to determine the nature and extent of contamination at a site.

Remedial Project Manager: The EPA official who is the technical lead on a long-term remediation project.

RI: See Remedial Investigation.

ROD: See Record of Decision.

RPM: See Remedial Project Manager.

SARA: See Superfund Amendments and Reauthorization Act.

Superfund Amendments and Reauthorization Act: Modifications to the Comprehensive Environmental Response, Compensation and Liability Act, or CERCLA, enacted on October 17, 1986.

Superfund: The program operated under the legislative authority of CERCLA that funds and carries out EPA solid waste emergency and long-term removal or remedial activities. These activities include: establishing the National Priorities List, investigating site for inclusion on the list, determining their priority, and conducting and/ or supervising cleanup and other remedial actions.

TAG. See Technical Assistance Grant.

TASC. See Technical Assistance Services for Communities.

Technical Assistance Grant. This grant provides money for activities that help communities participate in decision making at eligible Superfund sites.

Technical Assistance Services for Communities. This program supplies communities with technical help, so they can better understand the science, regulations and policies of environmental issues and EPA actions.

Appendix B - Community Interview Questions

DSC McLouth Steel Gibraltar Plant Superfund Site Interview Questions - August 2020

| Na | ame: | | |
|------------------------|--|--------------------------------|--|
| Ac | ldress: | | |
| Ho | ome Phone: () Cell Phone: (|) | |
| E- | Mail Address: | Date: | |
| B | ASICS | | |
| 2. | Are you a resident in the area? Yes No If yes, how long have you lived in the area? Do you own or rent? Own Rent If you rent, can you provide us with the contact information for the How do you identify yourself demographically in terms of race, etc. | | |
| 3. | 8. Are there any community organizations that might have an interest in the site? Yes You What organizations? | | |
| CC | OMMUNICATION | | |
| 4. 5. | Do you have access to the Internet? How do you want to be informed about site activities? Mail (do you want to be on U.S. EPA's mail list?) E-mail (do you want to be on U.S. EPA's email list?) Newspaper (what newspapers?) Television (what stations?) | Yes No Yes No Yes No Yes No | |
| | Radio (what stations?) | | |
| | Social Media (what form, Facebook, etc?) | | |
| | Websites or online sources | | |
| | Other (such as word of mouth, city/state officials, etc.) | | |

DSC McLouth Steel Gibraltar Plant Superfund Site Interview Questions - August 2020

| 6. | Are you aware of U.S. EPA's website? Yes No | | |
|---|---|--|-------------------|
| | a. If yes, have you been on it? Yes No | | |
| | b. Is it easy to navigate? Yes No | | |
| | c. Other comments: | | |
| 7. | Would you go to the library to review any documents about the site? If so, which library? Yes No | | |
| 8. | Would you attend a virtual public meeting about the site? Yes No | | |
| | Would you prefer a virtual meeting or conference calls? Virtual Conference Call | | |
| 9. Once social-distancing restrictions are lifted, would you likely attend meeting an in-pers | | | |
| | meeting about the site? | | |
| | a. If not, why not? | | |
| | b. If not, are there any obstacles that would keep you from attending? | | |
| 10. | 10. What days, times, and locations would be best for public meetings/virtual meetings/conference | | |
| calls? (List) | | | |
| 11. Again, once social-distancing restrictions are lifted, are there any area community groups meetings we might attend? Yes No | | | |
| | | | a. Group/Contact: |
| | b. Group/Contact: | | |
| 12. | 2. Have you received any information about the Gibraltar Plant site? Yes No | | |
| 13. | 3. Where are you getting your information about the site? From whom? In what form? When? | | |
| | CONCERNS | | |
| 14. | What concerns do you have about the site? | | |
| 15. | Is there anything we should know about the past or current use of the site? | | |
| 16. | 6. What is special/important to you about your community? | | |
| 17. | Is there anything else you would like to share about either the site or U.S. EPA's involvement with | | |
| | the local community? | | |
| 18. | Do you have any questions? | | |

Appendix C - Information Repository, Administrative Record, Website & Public Meetings

Local Information Repositories

Flat Rock Public Library

25200 Gibraltar Road Flat Rock, MI 48134 734-283-2430 https://www.frlib.org/

Trenton Veterans Memorial Library

2790 Westfield Road Trenton, MI 48183 734-676-9777 https://www.trenton.lib.mi.us/



Flat Rock Public Library

Photo courtesy of the Flat Rock Trenton Veterans Memorial **Public Library** Library



Official Information Repository

EPA Region 5 Superfund Record Center

Room 711, 7th Floor Ralph Metcalfe Federal Building 77 W. Jackson Blvd. Chicago, IL 60604 www.epa.gov/superfund/dscmclouth-steel-gibraltar



EPA Region 5 office building in Chicago

Likely Meeting Locations

Community Center

29340 S. Gibraltar Road Gibraltar, MI 48173 734-671-1466 tmclean@cityofgibraltar.net http://cityofgibraltar.net/parks-rec/community-center Capacity: 175 people



Photo courtesy of Gibraltar Councilman Bill Baker Gibraltar Community Center

Gibraltar City Hall

City of Gibraltar 29450 Munro Ave. Gibraltar, MI 48173 734-676-3900 tmclean@cityofgibraltar.net Capacity: 50 people



Photo courtesy of city of Gibraltar Gibraltar City Hall

Carlson High School

Gibraltar School District 30550 W. Jefferson Ave. Gibraltar, MI 48173 734-379-7100 shultzj@gibdist.net Capacity: 750 people

International Wildlife Refuge Visitor Center

Gibraltar School District 5437 W. Jefferson Ave. Trenton, MI 48183 Jody_Demeyere@fws.gov Capacity: 80 people

Flat Rock Public Library

25200 Gibraltar Road Flat Rock, MI 48134 734-283-2430 https://www.frlib.org/ Capacity: 50 people

Westfield Activities Center

2700 Westfield Road
Trenton, MI 48183
734-675-0063
https://www.trentonmi.org/675/
Westfield-Center
Capacity: 240 people



Photo courtesy of Gibraltar Councilman Bill Baker Carlson High School



Photo courtesy of U.S. Fish and Wildlife Service International Wildlife Refuge Visitor Center



Photo courtesy of the Flat Rock Public Library



Westfield Activities Center

Flat Rock Public Library

Appendix D - List of Contacts

U.S. Environmental Protection Agency (EPA) Officials **⊛FPA**

Robert Thompson

Remedial Project Manager Superfund Division 77 W. Jackson Blvd. Chicago, IL 60604 312-353-9078 thompson.robert@epa.gov

Kirstin Safakas

Community Involvement Coordinator Community Involvement & Outreach Section **External Communications Office** 77 W. Jackson Blvd. Chicago, IL 60604 Office: 312-886-6015 Cell: 312-919-4621

Brian Kelly

On-Scene Coordinator **USEPA National Vehicle and Fuel Emissions Laboratory** 2565 Plymouth Road Ann Arbor, MI 48105 734-714-4890 kelly.brian@epa.gov

safakas.kirstin@epa.gov

Federal Elected Officials

Gary Peters

U.S. Senator Hart Senate Office Building, Suite 724 Washington, DC 20510 202-224-6221

https://www.peters.senate.gov/contact/email-gary

Detroit Office

Patrick V. McNamara Federal Building 477 Michigan Ave., Suite 1837 Detroit, MI 48226 313-226-6020

Debbie Stabenow

U.S. Senator 731 Hart Senate Office Building Washington, DC 20510-2204 202-224-4822

https://www.stabenow.senate.gov/contact

Detroit Office

719 Griswold St., Suite 700 Detroit, MI 810-720-4172

Debbie Dingell

U.S. Representative 116 Cannon House Office Building Washington, DC 20515 202-225-4071 https://debbiedingellforms.house.gov/contact/

Dearborn Office

19855 W. Outer Dr., Suite 103-E Dearborn, MI 48124 313-278-2936

State Elected Officials

Gretchen Whitmer

Governor P.O. Box 30013 Lansing, Michigan 48909 517-373-3400 https://www.michigan.gov/whitmer/

Garlin Gilchrist

Lt. Governor P.O. Box 30013 Lansing, Michigan 48909 517-373-3400 https://www.michigan.gov/ whitmer/0,9309,7-387-90502---,00.html

Stephanie Chang (District 1)

State Senator P.O. Box 30036 Lansing, MI 48909 517-373-7346

https://senatedems.com/chang/contact/

Darrin Camilleri (District 23)

State Representative P.O. Box 30014 Lansing, MI 48909 517-373-0855

https://housedems.com/camilleri

Michigan Department of Environment, Great Lakes, and Energy (EGLE) Officials

EGLE MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAXES, AND ENERGY

Mellisa Powers Taylor

Project Manager

Remediation and

Redevelopment Division

Constitution Hall

525 West Allegan St.

Lansing, MI 48933

517-388-0795

PowersTaylorM@michigan.gov

Wayne County Officials

Warren Evans

Executive

500 Griswold St.

Detroit, MI 48226

313-224-0286

ombudsman@waynecounty.com

Joseph Palamara

Commissioner

500 Griswold St.

Detroit, MI 48226

313-224-0880

JPalamar@waynecounty.com

Cathy Garrett

Clerk

500 Griswold St.

Detroit, MI 48226

313-224-6262

Clerkhelp@waynecounty.com

Eric Sabree

Treasurer

500 Griswold St.

Detroit, MI 48226

313-224-5990

taxinfo@waynecounty.com

Carol Austerberry, MPA, MS, RS

Health Officer

33030 Van Born Road

Wayne, MI 48184

734-727-7000

causterb@waynecounty.com

Sheriff

4747 Woodward Ave. Detroit, MI 48201 313-224-2222

sheriffconnect.com

City of Gibraltar Officials

City of Gibraltar 29450 Munro Ave. Gibraltar, MI 48173

Tim McLean

City Administrator tmclean@cityofgibraltar.net 734-676-3900

Jim Gorris

Mayor

GorrisJ@cityofgibraltar.net

734-676-3900

Douglas Shaw

City Assessor

assessing@cityofgibraltar.net

734-676-3900, Ext. 222

Cynthia Lehr

City Clerk

clehr@cityofgibraltar.net

734-676-3900

Rodney Branham

Fire Chief

rbranham@cityofgibraltar.net

734-676-1022

Mathew Lawyer

Police Chief

734-676-1022

Virgil Maiani

Building Department vmaiani@trenton-mi.com

734-675-8251

The city of Gibraltar contracts these services with the city of Trenton Building Department.

Kenneth Laub

Finance Director klaub@cityofgibraltar.net 734-676-3900

Chelsea Frison

Water Department cfrison@cityofgibraltar.net 734-676-8982

Tammy Gorris

Parks and Recreation 734-671-1466 tamey@cityofgibraltar.net

Cody Dill

Councilmember Codyrdill01@gmail.com

Patrick M. Valentine

Councilmember valentinepatrick22@gmail.com

Dorothy Wood

Councilmember woodyanddot@msn.com

Bill Baker

Councilmember bbaker@cityofgibraltar.net

Robert Saunders

Councilmember

bob.saunders@wowway.net

David Riser

Councilmember

riserd@yahoo.com

Scott Denison

Treasurer

denisonscott@hotmail.com

Interested Parties

City of Gibraltar

Send fact sheets, etc. to the city to make available to the public. Send information to post on the city's website and Facebook page and to include in its newsletter. Speak to the city council to provide site updates. Possibly record meetings and provide site videos to run on the city's public access channel. 29450 Munro Ave.

Gibraltar, MI 48173

Gibrailar, Wii 40

734-676-3900

http://www.cityofgibraltar.net/

https://www.facebook.com/TheCityofGibraltar/

Community Service Organization

Send information to distribute to its members. Attend meetings to talk about the site.

Reverend Robin Honaker rock1620a@comcast.net

Downriver Walleye Federation

Send information to post on the federation's Facebook page.

P.O. Box 442

Lincoln Park, MI 48146 http://www.dwfonline.org/

https://www.facebook.com/groups/117989708213596/dwforg2018@gmail.com

Friends of the Detroit River

Send information for the organization to distribute via its email distribution list, put into its newsletter, and/or post on its Facebook page and website.

20600 Eureka Road, Suite 250

Taylor, MI 48180 734-288-3889

river@detroitriver.org https://detroitriver.org/

https://www.facebook.com/friendsofthedetroitriver/

Gibraltar community Facebook pages

Send information to post on the following Gibraltar community Facebook pages:

"Gibraltar Life"

https://www.facebook.com/groups/237328436753338/

"You know you're from Gibraltar if......"

https://www.facebook.com/ groups/1385780114967863/

Gibraltar Downtown Development Authority

Send information to post on the Downtown Development Authority Facebook page.

City of Gibraltar

29450 Munro Ave.

Gibraltar MI 48173

734-676-3900

http://www.cityofgibraltar.net/departments/downtown-

development-district

https://www.facebook.com/Gibraltar-Downtown-Development-Authority-200362223395963/

Gibraltar Historical Museum - Send information to

post on the Facebook page. Send fact sheets, etc. to make available to visitors.

29450 Munro St., 2nd Floor

Gibraltar, MI 48197

734-676-3900

http://www.cityofgibraltar.net/news/history

https://www.facebook.com/GibraltarHistoricalMuseum/

Gibraltar Beautification Commission

Send information to post on the commission's Facebook page. Possibly speak to the group at meeting.

29450 Munro St.

Gibraltar, MI 48173

734-676-3900 Ext 232

http://www.cityofgibraltar.net/commissions/

beautification

https://www.facebook.com/GibraltarBeautification

Gibraltar School District

Keep the schools updated. Possibly speak to and involve school science programs.

19370 Vreeland Rd.

Woodhaven, MI 48183

734-379-6350

https://www.gibdist.net/

International Wildlife Refuge

Send information to post on the refuge's Facebook page. Can also send fact sheets, etc. to put out in the visitor center once it is open.

https://www.fws.gov/refuge/detroit_river/ https://www.facebook.com/DetroitRiverIWR/

International Wildlife Refuge Alliance

Send information to post on the Alliance's website and

Facebook page.

5437 W. Jefferson Ave.

Trenton, MI 48183

https://www.iwralliance.org/

https://www.facebook.com/iwra.mi/

Kiwanis Club of Greater Gibraltar

Send information to post on the club's Facebook

https://www.facebook.com/

KiwanisClubofGreaterGibraltar/

Lake Erie Metro Park

Send fact sheets, etc. to make available to visitors at the park.

32481 W. Jefferson Ave.

Brownstown, MI 48173

734-379-5020

https://www.metroparks.com/parks/lake-erie-

metropark/

Pointe Mouillee State Game Area

Send information to post in the area. Participate in the Pointe Mouillee Waterfowl Festival by hosting a booth with information about the site.

37205 Pt. Mouillee Road

Rockwood, MI 48173

734-379-9692

https://ptemouilleewaterfowlfestival.org/

Rotary Club of Gibraltar

Send information for the Rotary to post its Facebook

page. Attend a meeting to talk about the site.

https://www.rotaryclubofgibraltar.com/

https://www.facebook.com/GibRockRotary/

Southern Wayne County Regional Chamber of Commerce

Send information to distribute to the chamber's membership and for the chamber to post its Facebook page, Instagram page, and YouTube channel.

20904 Northline Road Taylor, MI 48180-4719

734-284-6000

https://www.swcrc.com/

https://www.facebook.com/SWCRC

https://twitter.com/swcrc

https://www.instagram.com/swcrchamber/

Wyandot of Anderdon Nation

Send information to distribute to the tribe and post on the Nation's Facebook page.

P.O. Box 68

Trenton, MI 48183

http://www.wyandotofanderdon.com/wp/

https://www.facebook.com/groups/720301074662225/

Newspapers

News Herald

One Heritage Dr., Suite 100 Southgate, MI 48195

734-246-0800

Jalley@thenewsherald.com

Ckruemmer@digitalfirstmedia.com Publishes Wednesdays and Sundays

Detroit Free Press

160 W. Fort St. Detroit, MI 48226 313-222-6400

City@freepress.com

Publishes daily

The Detroit News

160 W. Fort St. Detroit, MI 48226 313-222-2323

https://www.detroitnews.com/

Monroe News

20 W. First St. Monroe, MI 48161 734-242-1100

https://www.monroenews.com/

Radio

News/Talk 760 WJR

3011 West Grand Blvd., Suite 800

Detroit, MI 48202 313-875-4440

https://www.wjr.com/

WWJ News Radio 950

26455 American Dr. Southfield, MI 48034

248-327-2900

https://wwjnewsradio.radio.com

WDET 101.9FM - Detroit's NPR Station

4600 Cass Ave. Detroit, MI 48201 313-577-4146 https://wdet.org/

Television

WXYZ-TV 7 & WMYD- TV 20 (ABC)

20777 W. Ten Mile Road Southfield, MI 48075 248-827-7777

www.wxyz.com

WDIV- Local TV4 (NBC)

550 W. Lafayette Detroit, MI, 48226 www.clickondetroit.com/

WWJ-TV 62 (CBS)

26905 W. Eleven Mile Road

Southfield, MI 48033

248-355-7000

https://detroit.cbslocal.com/

station/cbs-62/

WJBK-TV2 (FOX)

P.O. Box 2000

16550 West Nine Mile Road

Southfield, MI 48037

248-557-2000

http://www.fox2detroit.com/

WTVS 56- Detroit Public Television

Riley Broadcast Center

1 Clover Court

Wixom, MI 48393-2247

248-305-3900

www.dptv.org/home

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Appendix E - Community Engagement in the Superfund Process

Superfund is an environmental cleanup program enabled by a federal law enacted in 1980, known as the **Comprehensive Environmental Response**, **Compensation**, and **Liability Act**, or **CERCLA**. In 1986 another law, the **Superfund Amendments and Reauthorization Act**, or **SARA**, reauthorized CERCLA to continue Superfund cleanup activities. This law gives EPA the authority to require those parties responsible for creating a hazardous waste site to clean up that site, or to reimburse the government if EPA cleans up the site. EPA compels responsible parties to clean up hazardous waste site through administrative orders, consent decrees and other legal settlements. EPA is authorized to enforce the Superfund law within all 50 states, U.S. territories and tribal nations. Superfund site identification, monitoring and response activities are coordinated with state, tribal and territorial environmental protection or waste management agencies.



There are several steps involved in cleaning up a contaminated site. Once EPA has been made aware of a contaminated site from citizens, local, tribal, or state agencies, EPA follows a step-by-step process (see Page 21) to determine the best way to clean up the site and protect human health and the environment.

If the site poses an immediate threat to public health or the environment, EPA can intervene with an emergency response action. The goal of EPA's Emergency Response and Removal Program is to protect the public and environment from immediate threats posed by the release or discharge of **hazardous substances**.

The Superfund program encourages active dialogue between communities affected by the release of hazardous substances and all the agencies responsible for overseeing cleanup actions. EPA considers community involvement to be an important part of the Superfund program and opportunities for community involvement occur throughout the process. At each step in the process, there are opportunities for various levels of community engagement.

Additional EPA Websites

Superfund: www.epa.gov/superfund

Cleanup Process: www.epa.gov/superfund/cleaning-superfund-sites

Community Involvement: www.epa.gov/superfund/superfund-community-involvement

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Appendix F- Fact Sheets

Contaminants of Concern: Phenol

Per- and Polyfuoroalkyl Substances

Phenol - ToxFAQs™

CAS # 108-95-2

This fact sheet answers the most frequently asked health questions (FAQs) about phenol. For more information, call the CDC Information Center at 1-800-232-4636. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It is important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, personal traits and habits, and whether other chemicals are present.

HIGHLIGHTS: Phenol is both a manufactured chemical and a natural substance. Phenol is used as a disinfectant and is found in a number of consumer products. Skin exposure to high amounts can produce skin burns, liver damage, dark urine, irregular heart beat, and even death. Ingestion of concentrated phenol can produce internal burns. Phenol has been found in at least 595 of the 1,678 National Priority List (NPL) sites identified by the Environmental Protection Agency (EPA).

What is phenol?

Phenol is both a manufactured chemical and a natural substance. It is a colorless-to-white solid when pure. The commercial product is a liquid. Phenol has a distinct odor that is sickeningly sweet and tarry.

You can taste and smell phenol at levels lower than those that are associated with harmful effects. Phenol evaporates more slowly than water, and a moderate amount can form a solution with water.

Phenol is used primarily in the production of phenolic resins and in the manufacture of nylon and other synthetic fibers. It is also used in slimicides (chemicals that kill bacteria and fungi in slimes), as a disinfectant and antiseptic, and in medicinal preparations such as mouthwash and sore throat lozenges.

What happens to phenol when it enters the environment?

- Following small, single releases, phenol is rapidly removed from the air (generally, half is removed in less than a day).
- Phenol generally remains in the soil only about 2 to 5 days.
- Phenol can remain in water for a week or more.
- Larger or repeated releases of phenol can remain in the air, water, and soil for much longer periods of time.
- Phenol does not build up in fish, other animals, or plants.

How might I be exposed to phenol?

- You may be exposed to phenol if you live near landfills or hazardous waste sites that contain phenol or near facilities manufacturing phenol.
- You may be exposed to very low levels in your home because it is found in a number of consumer products, including mouthwashes and throat lozenges.
- You may be exposed to phenol if you undergo "chemical peels" to remove skin lesions with phenol-containing products or are treated for chronic pain or spasticity with injections of phenol.
- Low levels of phenol are found in some foods, including smoked summer sausage, fried chicken, mountain cheese, and some species of fish.
- Smoking or inhaling second hand smoke will expose you to phenol.
- Low levels of phenol can be present in air and drinking water.

How can phenol affect my health?

Most of the phenol that you may inhale or ingest will enter the bloodstream; less will enter if there is contact with the skin.

Short-term exposure to phenol in the air can cause respiratory irritation, headaches, and burning eyes. People who had skin exposure to high amounts of phenol had skin burns, liver damage, dark urine,

Agency for Toxic Substances and Disease Registry

Division of Toxicology and Human Health Sciences

CS265956-A



Phenol

CAS # 108-95-2

irregular heart beat, and some died. Ingestion of high concentrations of phenol has resulted in internal burns and death.

In animals, breathing air with high levels of phenol resulted in irritation of the lungs. Repeated exposures induced muscle tremors and loss of coordination. Exposure to high concentrations of phenol in the air for several weeks caused paralysis and severe injury to the heart, liver, kidneys, and lungs, and in some cases, death. Some animals that drank water with very high concentrations of phenol suffered muscle tremors and loss of coordination.

Phenol can have beneficial effects when used medically as an antiseptic or anesthetic.

How likely is phenol to cause cancer?

The International Agency for Research on Cancer (IARC) and the EPA have determined that phenol is not classifiable as to its carcinogenicity to humans.

How can phenol affect children?

Vomiting and lethargy were the most frequent signs of toxicity observed in children who accidentally ingested phenol and were treated at a poison control center. We do not know whether children would be more sensitive than adults to the effects of phenol.

Phenol has caused minor birth defects and low birth weight in animals generally at exposure levels that also were toxic to the pregnant mothers.

How can families reduce the risks of exposure to phenol?

 Avoiding environmental tobacco smoke, which contains phenol, will reduce phenol exposures. Always store household products and over-thecounter medications that contain phenol in their original labeled containers out of the reach of children.

Is there a medical test to determine whether I've been exposed to phenol?

Phenol can be measured in blood and urine. A higherthan-normal concentration of phenol in the urine may suggest recent exposure to phenol or to substances that are converted to phenol in the body.

The detection of phenol and/or its metabolites in your urine cannot be used to predict the kind of health effects that might develop from that exposure.

Has the federal government made recommendations to protect human health?

The EPA has determined that exposure to phenol in drinking water at concentrations of 6 mg/L for up to 10 days is not expected to cause any adverse effects in a child.

The EPA has determined that lifetime exposure to 2 mg/L phenol in drinking water is not expected to cause any adverse effects.

The Occupational Safety and Health Administration (OSHA) has set a limit of 5 parts per million (ppm) of phenol in air to protect workers during 8-hour work shifts.

References

Agency for Toxic Substances and Disease Registry (ATSDR). 2008. Toxicological Profile for Phenol. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

Where can I get more information?

For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology and Human Health Sciences, 1600 Clifton Road NE, Mailstop F-57, Atlanta, GA 30329-4027.

Phone: 1-800-232-4636.

ToxFAQs™ Internet address via WWW is http://www.atsdr.cdc.gov/toxfaqs/index.asp.

ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

September 2008 Page 2 of 2

Perfluoroalkyl and Polyfluoroalkyl **Substances (PFAS)**

Frequently Asked Questions

What are PFAS?

Perfluoroalkyl and polyfluoroalkyl substances (PFAS) are a large group of man-made chemicals that have been used in industry and consumer products worldwide since the 1950s.

- PFAS do not occur naturally, but are widespread in the environment.
- PFAS are found in people, wildlife and fish all over the world.
- Some PFAS can stay in people's bodies a long time.
- Some PFAS do not break down easily in the environment.

How can I be exposed to PFAS?

PFAS contamination may be in drinking water, food, indoor dust, some consumer products, and workplaces. Most non worker exposures occur through drinking contaminated water or eating food that contains PFAS.

Although some types of PFAS are no longer used, some products may still contain PFAS:

- Food packaging materials
- Nonstick cookware
- Stain resistant carpet treatments
- Water resistant clothing
- Cleaning products
- Paints, varnishes and sealants
- Firefighting foam
- Some cosmetics

How can I reduce my exposure to PFAS?

PFAS are present at low levels in some food products and in the environment (air, water, soil etc.), so you probably cannot prevent PFAS exposure altogether. However, if you live near known sources of PFAS contamination, you can take steps to reduce your risk of exposure.

- If your drinking water contains PFAS above the EPA Lifetime Health Advisory, consider using an alternative or treated water source for any activity in which you might swallow water:
 - » drinking
 - » food preparation
 - » cooking
 - » brushing teeth, and
 - » preparing infant formula
- Check for fish advisories for water bodies where you fish.
 - » Follow fish advisories that tell people to stop or limit eating fish from waters contaminated with PFAS or other compounds.
 - Research has shown the benefits of eating fish, so continue to eat fish from safe sources as part of your healthy diet.
- Read consumer product labels and avoid using those with PFAS.

Agency for Toxic Substances and Disease Registry

Division of Community Health Investigations





How can PFAS affect people's health?

Some scientific studies suggest that certain PFAS may affect different systems in the body. NCEH/ATSDR is working with various partners to better understand how exposure to PFAS might affect people's health—especially how exposure to PFAS in water and food may be harmful. Although more research is needed, some studies in people have shown that certain PFAS may:

- affect growth, learning, and behavior of infants and older children
- lower a woman's chance of getting pregnant
- interfere with the body's natural hormones
- increase cholesterol levels
- · affect the immune system and
- increase the risk of cancer

At this time, scientists are still learning about the health effects of exposures to mixtures of PFAS.

How can I learn more?

You can visit the following websites for more information:

- CDC/ATSDR:
 - » CDC Info: https://www.cdc.gov/cdc-info/, or (800) 232-4636.
 - » www.atsdr.cdc.gov/pfc/index.html
 - » https://www.cdc.gov/exposurereport/index.html
- Environmental Protection Agency (EPA):

https://www.epa.gov/chemical-research/research-and-polyfluoroalkyl-substances-pfas

- Food and Drug Administration:
 - https://www.fda.gov/food/newsevents/constituentupdates/ucm479465.htm
- National Toxicology Program:

https://ntp.niehs.nih.gov/pubhealth/hat/noms/pfoa/index.html

If you have questions about the products you use in your home, please contact the **Consumer Product Safety Commission (CPSC)** at **(800) 638-2772**.

List of Common PFAS and Their Abbreviations:

| Abbreviation | Chemical name |
|------------------------------|--|
| PFOS | Perfluorooctane sulfonic acid |
| PFOA (or C8) | Perfluorooctanoic acid |
| PFNA | Perfluorononanoic acid |
| PFDA | Perfluorodecanoic acid |
| PFOSA (or FOSA) | Perfluorooctane sulfonaminde |
| MeFOSAA (aka Me-PFOSA-AcOH) | 2-(N-Methyl-perfluorooctane sulfonamido) acetic acid |
| Et-FOSAA (aka Et-PFOSA-AcOH) | 2-(N-Ethyl-perfluorooctane sulfonamido) acetic acid |
| PFHxS | Perfluorohexane sulfonic acid |

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